



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/000,379	10/31/2001	Lalit K. Mestha	D/A1097 XER 2 0437	9053

7590 07/02/2004

Patrick R. Roche
Fay, Sharpe, Fagan, Minnich & McKee, LLP
7th Floor
1100 Superior Avenue
Cleveland, OH 44114-2518

EXAMINER

KOCH, GEORGE R

ART UNIT	PAPER NUMBER
----------	--------------

1734

DATE MAILED: 07/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/000,379

Applicant(s)

MESTHA ET AL.

Examiner

George R. Koch III

Art Unit

1734

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) 6-19 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Applicant's election with traverse of group I, claims 1-5 in the reply filed on 3-25-2004 is acknowledged. The traversal is on the ground(s) that that group I and group III are not distinct and are patentable over each other. This is not found persuasive because the inventions are considered distinct, since the apparatus as claimed can be used for coloring generic items and without the color correction method of group I.

The requirement is still deemed proper and is therefore made FINAL.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

3. Claims 1, 2 and 5 are rejected under 35 U.S.C. 102(b) as being anticipated by Balasubramanian-1996 (the second NPL IDS document).

Balasubramanian-1996 discloses a method of processing transient errors (such as printer dprint - see page 334) produced in a color measurement system monitoring a

Art Unit: 1734

color producing process, comprising (see pages 336, section 3.1) 1) implementing a model of the color producing process (see Figure 1, item "Model"), 2) monitoring an input to the color producing process {signal x_i (CMYK)}, 3) predicting an expected color signal based on the model and monitored input {the result of model $f(x_i)$ }, 4) measuring an output color {result of the printer}, produced by the color producing process to produce a measured color signal {signal $f'(x_i)$ }, 5) comparing the measured color signal to the expected color signal to produce a color error value (the result of the regression analysis) and selectively replacing the measured color signal based on the color error (the result of the matrix multiplication).

As to claim 2, Balasubramanian-1996 discloses replacing the measured color signal with a predicted color signal based on the expected color signal (see Figure 2).

As to claim 5, Balasubramaniam-1996 discloses selecting a Neugebauer model to be representative of the color producing process.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

Art Unit: 1734

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

6. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Balasubramanian-1996 (the second NPL IDS document) as applied to claims 1 and 5 above, and further in view of Stokes (US Patent 5,612,902).

Balasubramanian discloses that models can be used, and specifies a Neugebauer model as a well-known model that can be used. However, one would appreciate that any well known model can be utilized.

Stokes discloses various printer models that can function as approximations of a printer device. Stokes discloses that an empirical model can be used, i.e., an on-line statistical parameterized model, and discloses that this model is used to create customized compensation values (see column 2, lines 4-21). One in the art would appreciate that such a model would be built on a large number of measurements and would thus provide optimal accuracy, at a trade off which is increased complexity. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have utilized such an empirical model in order to achieve optimal accuracy.

Stokes also discloses a Viggiano analytical model (described in column 5, line 14 to column 5, line 51), i.e., a multidimensional numerical model (see claim 1, especially in column 9, lines 3-8, which claim this model as a multidimensional lookup table, i.e., a multidimensional numerical model) and discloses that this model allows for faster modeling of the printer functioning (this model requires five sample steps). Therefore, it

Art Unit: 1734

would have been obvious to one of ordinary skill in the art at the time of the invention to have utilized such model in order to achieve faster modeling of the printer function.

Allowable Subject Matter

7. Claims 3 and 4 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

8. The following is a statement of reasons for the indication of allowable subject matter: With regard to claim 3, the prior art of record does not disclose storing a measured color signal representative of the measured color signal in association with the monitored input.

With regard to claim 4, the prior art of record does not disclose replacing the measured color signal with an historical color signal based on an historical value related to the monitored input.

Information Disclosure Statement

9. The US patent 6,178,007 cited in the IDS submitted 3/25/2004 which has been crossed out was crossed out because it was included in the IDS submitted 1/23/2003. This reference has been considered and made of record on that IDS form.

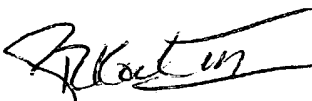
Any inquiry concerning this communication or earlier communications from the examiner should be directed to George R. Koch III whose telephone number is (571)

Art Unit: 1734

272-1230 (TDD only). If the applicant cannot make a direct TDD-to-TDD call, the applicant can communicate by calling the Federal Relay Service at 1-800-877-8339 and giving the operator the above TDD number. The examiner can normally be reached on M-Th 10-7.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on (571) 272-1226. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



GRK

June 17th, 2004

George R. Koch III
Patent Examiner
Art Unit 1734